Comment letters received during the comment period ending in January 2007

THIS PAGE IS INTENTIONALLY LEFT BLANK

Email Correspondence from U.S. EPA, Diane Fleck

>>> Fleck.Diane@epamail.epa.gov> 1/4/2007 4:50 PM >> Dyan,

Thank you for the opportunity to review the proposed Basin Plan Amendment and the Total Maximum Daily Load for Mercury in the Walker Creek Watershed Staff Report. The Basin Plan Amendment includes new water quality objectives for mercury for the protection of wildlife and aquatic life in fish tissue, as well as the TMDLs for Walker Creek and Soulajule Reservoir. We commend your staff for their hard work on developing these mercury objectives and on completing these difficult TMDL analyses. We can support both the new water quality objectives andthe TMDLs, and urge their adoption at the upcoming hearing on January 23, 2007.

If you have any questions, please do not hesitate to contact me at (415) 972-3480.

Diane

Diane E. Fleck, P.E., Esq. U.S. EPA Region 9 WTR-2 75 Hawthorne Street San Francisco, CA 94105 Phone: 415 972-3480

Fax: 415 947-3537



230 Nellen Menne Corre Madera CA 94925-1465 www.marimatecore

January 4, 2007

Ms. Jill Marshall San Francisco Bay Regional Water Quality Control Board 1515 Clay Street, Suite 1400 Oakland, CA 94612

Re: Total Maximum Daily Load for Mercury in Walker Creek

Dear Ms. Marshall:

Thank you for the opportunity to provide comments on the revised proposal for a Basin Plan Amendment and Total Maximum Daily Load (TMDL) for Mercury in Walker Creek. We appreciate the changes that the Board staff have made in the document to reflect our previous comments. We also continue to strongly support the efforts by the Regional Board to characterize and address mercury contamination in water bodies throughout the watershed, including in Walker Creek.

MMWD is very willing to participate in a partnership with the Regional Board and other federal, state and local agencies to address environmental contamination problems created by naturally-occurring mercury in the San Francisco Bay Region. To this end, MMWD will participate in a joint monitoring program to characterize the sources of mercury contamination and identify potential cost-effective measures that can be taken to reduce this contamination. MMWD is willing to provide matching funding for this effort.

The proposed TMDL for mercury in Walker Creek appears to specify a requirement that MMWD develop and submit for a monitoring program for mercury in Soulajule Reservoir. It also appears to specify that MMWD will prepare and implement a plan to control methylmercury in Soulajule Reservoir at a level necessary to meet the TMDL targets.

While we are pleased to note that the targets in the TMDL are listed under load allocations, rather than wasteload allocations, and are thereby recognized as contributed by natural sources, we are concerned about the inconsistency of this listing in the targets section of the TMDL with the measures specified in the implementation section. Furthermore, there appears to be an inconsistency in the description of the proposed implementation measures for Soulajule Reservoir between the TMDL, which specifies submittal of a monitoring and implementation plan, and the staff report, which

Ms. Jill Marshall Comments on Walker Creek Mercury TMDL Page 2

states that such plans must be approved by the Executive Officer of the Regional Board.

MMWD believes that the specification of a required monitoring or pollution control plan for Soulajule reservoir is inappropriate for a TMDL, because MMWD is not a discharger of pollutants subject to either an NPDES permit or a Waste Discharge Requirement. Subsequent to the previous version of the proposed TMDL, we demonstrated clearly that there are no mines on MMWD property which would be subject to industrial stormwater permits, and we are pleased to see that the references to such permits were eliminated from the current version of the TMDL. We restate here our recommendation of September 18, 2006, that similar references to required monitoring or implementation plans for Soulajule Reservoir be removed from this version, as well.

As we have noted in our earlier comments to the Regional Board, the Surface Water Assessment and Monitoring Program data indicate that mercury is endemic in fish in reservoirs and other waterbodies throughout the San Francisco Bay region. The analysis of this data has shown that many reservoirs contain fish that exceed public health goals or water quality criteria. Furthermore, the control measures proposed in the TMDL are implemented in a number of these reservoirs, and mercury levels continue to exceed target levels. Consequently, it may never be possible to achieve target levels for mercury in fish in reservoirs or other waterbodies in the San Francisco Bay region, and likely not in a cost-effective manner.

Nevertheless, as stated in the introduction of this letter, MMWD is prepared to participate in a regional effort to characterize the extent of the mercury contamination problem, and to develop and implement reasonable measures to reduce, and hopefully eliminate these contamination problems.

We look forward to working with the staff of Regional Board and with other agencies to achieve this goal.

Sincerely,

Sincerely,

Paul Helliker General Manager

Paul Killila

Email Correspondence from MMWD, Bob Castle

>>> "Bob Castle" <bcastle@marinwater.org> 1/4/2007 2:18 PM >>> Hi Jill,

We disagree with your proposal to use 0.02 ng/L as a value that labs can reliably and accurately detect.

EPA Method 1630 for Methyl Mercury determination states that the Method Detection Limit (MDL) is 0.02 ng/L when no background elements or interferences are present. The minimum level (ML) stated by EPA is 0.06 ng/L. Using historical EPA criteria, the practical quantification limit (PQL), would be 0.10 ng/L.

MDL's are typically generated by 7-10 consecutive analyses on the same day in laboratory reagent blank water spiked at 3-5 times the anticipated MDL. These conditions are perfect and artificial and do not exist in the real world of day-to-day analysis. Even in this perfect world, at the MDL level there exist a 5% probability of a false negative or false positive being reported (which is a 10% total error) as referenced in "Standard Methods for the Examination of Water and Wastewater".

Since multiple laboratories will be reporting results from multiple analysts and multiple water matrices, it is particularly important that any reporting level be substantially higher than the MDL of $0.02~\rm ng/L$. To back up this point method 1630 states that method blanks may average up to $0.045~\rm ng/L$. This value is dangerously close to the ML of $0.06~\rm ng/L$ and more than twice the MDL. Typically method blank values should be $1/2~\rm of$ the reportable values. This is in agreement with a PQL of $0.10~\rm ng/L$. We therefore find it prudent to report reliable results at the level of $0.10~\rm ng/L$ or greater.

Bob

>>> "Jill Marshall" <JAMarshall@waterboards.ca.gov> 12/21/2006 5:28 PM >>>

Hi Bob,

Carrie and I followed up on EPA detection limits for aqueous methylmercury.

The method detection limits for total mercury (method 1631e) is 0.05 ng/L, and for methylmercury (method 1630) is 0.02 ng/L. These methods are available at: http://www.epa.gov/waterscience/methods/1631.html

http://www.brooksrand.com/FileLib/1630.pdf

Both of these methods describe that it is possible to get even lower detection limits, and in our sampling we HAVE gotten lower detection limits.

According to Frontier Geosciences (the lab we routinely used for Walker samples) They routinely achieve 0.009 ng/L DL for aqueous MeHg They do j-flag anything between 0.009 and 0.045 therefore, we would expect a j-flag for 0.04 ng/L.

J reflects the fact that there is certainty that the analyte was detected in the lower portion of the linear regression where the error is high and therefore the quantitation is uncertain. Data flagged with a J are always used as valid data in site assessments, although I would recommend that only one significant figure be used.

The minimum level (0.06) listed for method 1630 is a value in the event of lots of interferences in the sample, such as high suspended solids, or in a marine sample. We do not expect this to be a problem for a sample from a reservoir, so based on the method it seems reasonable to expect 0.02 ng/L for these samples.

have a great holiday i